

## **REMARKS**

In order to better define his invention, Applicant has amended claim 1 to that make clear that a key feature of the sampling aliquotter system of his invention comprises a unique dual-action locking mechanism that locks a vertically translatable probe and unlocks and lock a tube retainer, or vice versa, with the same movement so that a single actuator can perform two functions.

### ***Claim Rejections –35 USC §102***

Claims 1, 2 and 4-6 are rejected under 35 USC 102(b) as being anticipated by US Patent 4,951,513 to Koike. Koike teaches an automatic preparation apparatus for preparing samples by performing filtration, dilution and reaction steps. The apparatus comprises test tubes on a turntable. A probe robot is provided with a probe needle driven by a horizontal drive for movement from left to right and a vertical drive for movement in the vertical direction. Koike teaches that the vertical drive moves the probe needle into the tube for sampling liquid. The reference further teaches dispensing liquid into the sample injection port or sealing chamber. The apparatus also comprises a syringe pump for aspirating and discharging a predetermined amount of liquid. Probe cleaning liquid flows via openings in a cleaning mechanism, which communicate with a cleaning liquid supply and discharge system.

As now claimed, Applicant's sampling aliquotter system comprises a unique dual-action locking mechanism that locks a vertically translatable probe and unlocks and lock a tube retainer, or vice versa, with the same movement so that a single actuator can perform two functions. Koike fails to teach a locking mechanism; therefore, since Koike does not teach each and every feature of the claimed invention, the rejection under 35 USC 102(b) is overcome and is respectfully requested to be withdrawn.

### ***Claim Rejections –35 USC §103***

Claim 3 is rejected under 35 USC 103(a) as being unpatentable over Koike in view of U. S. Patent No. 5,347,878 to Souvaniemi. Since Koike does not disclose any form of a

locking mechanism, the Examiner introduces Souvaniemi who teaches a pipette assembly with a locking feature.

Souvaniemi's locking mechanism comprises a locking sleeve 24 provided with a notched circle 7, and a locking member 8, fitted to be lockable in any desired notch 9. The locking sleeve 14 encircles a plunger stem 13, and on its outer circumference 7 have been arranged notches 9 (FIG. 3). The locking member 8 is elastically urged against a notch 9 so as to lock the rotatable adjustment means of a volume-adjustable pipette. For adjustment of the adjustment means, the plunger is twisted with sufficient force, to cause the locking member to rise out of the notch, and pushes into the next notch which comes into register, and so on, until the desired dispensing volume setting has been reached.

The Examiner states that it would have been obvious to incorporate a locking mechanism into the sampling arms of Koike to avoid mishaps in aspirating or dispensing the sample fluid. The addition of a locking feature to a sampling probe suitable for sampling from open containers may be advisable, however, Souvaniemi's ratchet-like locking mechanism cannot be said to make applicant's invention obvious. As now claimed, Applicant's sampling aliquotter system comprises a unique dual-action locking mechanism that locks a vertically translatable probe and unlocks and lock a tube retainer, or vice versa, with the same movement so that a single actuator can perform two functions.

Claim 1 is specific to a retainer in combination with a pair of clips mounted on a round shaft, the clips being rotated between a binding position and a free position by a single rotary actuator such that when the first clip locks the probe, the second clip releases the retainer and when the second clip locks the retainer, the first clip locks the probe. This is a unique arrangement wherein, in a single movement, a rotary actuator either binds the probe and releases the retainer or releases the probe and binds the retainer. None of these features can be found in Souvaniemi's ratchet-like locking mechanism having a locking sleeve with a notched circle and a locking member fitted to be lockable into a desired notch.

Furthermore, Applicant's locking mechanism is designed to lock and unlock a vertically translatable probe (66) and unlock and lock a tube retainer, at the same time with the same movement, in a controlled manner, so that a single actuator can perform two functions (explained between paragraphs [0063] to [0077]). There is no viable reason for an artisan, even one aware of Souvaniemi's rotary locking mechanism, to consider trying to

employ a rotary locking mechanism in order to lock and unlock a vertically translatable probe and simultaneously unlock and lock a retainer. Applicant thus believes there is no valid basis for the obviousness rejection and respectfully requests that said rejection of claim 3 be withdrawn.

### ***Conclusion***

Applicant believes that this application contains patentable subject matter and that the foregoing amendments provide a basis for favorable consideration and allowance of all claims; such allowance is respectfully requested. If any matter needs to be resolved before allowance, the Examiner is encouraged to call Applicant's representative at the number provided below.

Respectfully submitted,



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